DOCUMENT RESUME

ED 191 972 UD 020 917

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TITLE Systematic Approaches to Bilingual Education (Project SABE) and Bilingual Language Arts Services (Project BLAS). Final Evaluation Report, 1978-1979.
INSTITUTION New York City Board of Education, Brooklyn, N.Y. Office of Educational Evaluation.
PUB DATE [79]
NOTE 33p.

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Academic Achievement; *Bilingual Education; *Bilingual Teacher Aides; *Bilingual Teachers; Education Courses; Elementary Education; English (Second Language); *Faculty Development; *Inservice Teacher Education; Program Descriptions; Program Effectiveness; Program Evaluation
IDENTIFIERS *Bilingual Education Act 1968; Elementary Secondary Education Act Title VII; *New York (New York)

ABSTRACT

The ultimate goal of Project SABE (Systematic Approaches to Bilingual Education) was to improve the linguistic and computational performance of 793 New York City students with limited proficiency in English and 141 English dominant students in grades K-4. The instrumental goal of the project was to improve the performance of the 34 bilingual teachers and 9 paraprofessionals involved in the program. Pupil instructional activities focused on the development of reading, writing, and mathematics competence. English as a Second Language instruction was offered as well as content area teaching in the child's dominant language. Teacher training consisted of orientation workshops, inservice programs, on-site observation and training by resource teachers, and college education programs. Project SABE also had a community and parental involvement component. Pre and posttest achievement data, interviews, and observation were employed to facilitate the development of recommendations for future program implementation. Kindergarteners were found to improve minimally in English and Spanish language arts skills. Students in grades 1-4 were found to have accomplished program objectives of statistically significant gains in English and Spanish reading and math skills. (MK)

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FINAL EVALUATION REPORT

SYSTEMATIC APPROACHES TO BILINGUAL EDUCATION (SABE)
ESEA TITLE VII
PROJECT 5004-87685

BILINGUAL LANGUAGE ARTS SERVICES (BLAS)
CHAPTER 720
PROJECT 5008-98451

ACADEMIC YEAR 1978-79

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FINAL EVALUATION REPORT

SYSTEMATIC APPROACHES TO BILINGUAL EDUCATION
(PROJECT SABE)

and

BILINGUAL LANGUAGE ARTS SERVICES
(PROJECT BLAS)

1978-1979

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Project Description

1.0 Introduction:

The Project Systematic Approaches to Bilingual Education (SABE) was funded for fiscal year 1978-79 as a continuation grant under the provisions of the ESEA - Title VII administered by the U.S. Office of Education. It has completed its third year of a five-year funding cycle.

SABE is a supportive service teacher training program operating as a unit of the Center for Bilingual Education of the Board of Education of New York City. Until May of 1979, the center formed an integral part of the Division of Educational Planning and Support. As of May, this Center has become an office reporting directly to the Chancellor of the Board of Education.

As an administrative unit, Bilingual Education has been establishe in the Board of Education of N.Y.C. since 1972 in order to plan and develop comprehensive Bilingual Education Programs. Presently it also includes English as a Second Language, Native American Education, and Training and Resource Materials Programs. It serves approximately 75,000students in 550 schools in 32 decentralized school districts and 33 centralized high schools.

SABE is a centrally-based program operating in collaboration with three decentralized community school districts (CSD): #4 in Manhattan: #7 and 12 in the Bronx. Through its effort, 934 students are served in 5 community schools and one non-public school. Thirty bilingual teachers and 9 paraprofessionals

were trained through workshops and classroom supervision and assistance. Additionally, the program collaborated with Hunter and Lehman Colleges of the City University of New York in the professional development of the participating bilingual teachers and paraprofessionals. It also collaborated with Fordham University in the development of its administrative and training staff.

2.0 Program Goals and Objectives:

The proposed ultimate goal of the program is to improve the linguistic and computational performance of 870 LEP students. Its instrumental goal is to improve the performance of 34 Bilingual Teachers employed in CSD's #4, 7, and 12; and 9 paraprofessionals employed by the Project (7 as paraprofessional teacher assistants and 2 as parent trainers).

Specifically, the program had the following objectives for the 1978-79 period:

1. Through the use of the students' vernacular as a means of instruction, students will be able to participate effectively in the learning process. (Expected outcome: statistically significant difference between pre- and post- tests raw score means, $p \leq .05$)
2. By developing a cadre of trained teachers and paraprofessionals, students' cognitive and effective domains will be enhanced.
3. Through parent workshop activities in areas such as the philosophy of Bilingual Education, child growth and development, and basic teaching techniques the

parents will be able to provide the children with meaningful learning experiences that will complement classroom activities. Objective to be achieved over a five year period (1976-81):

4. By using the bilingual education experiences of Project SABE, the program will design and produce educational manuals in the following areas:
   a) Administration of Bilingual Education Programs.
   b) Instructional Approaches in Bilingual Education.
   c) Teacher and Paraprofessional Training in Bilingual Education.
   d) Community and Parental Involvement in Bilingual Education.

3.0 Sites

District	SCHOOL	GRADE	STUDENT'S LANGUAGE DOMINANCE
CSD 4-M	CS 121	1 k	Spanish
		1 1st	Spanish
		1 2nd	Spanish
		1 3rd	Spanish
		1 4th	Spanish
CSD 7-BX	CS 5	1 1st	Spanish
		1 1st/2nd	Spanish
		1 2nd	Spanish
		1 3rd	English
		1 3rd	Spanish
		1 4th	Spanish
	CS 6	1 1st	Spanish
		1 1st	Spanish
		1 2nd	Spanish
		1 3rd	Spanish
		1 3rd	Spanish
		1 4th	Spanish

DISTRICT	SCHOOL	GRADE	STUDENTS LANGUAGE DOMINANCE
CSD 12-BX	CS 44	1 2nd	Spanish
		1 3rd	Spanish
		1 4th	Spanish
		1 4th	English
		1 2nd	Spanish
		1 3rd	Spanish
		1 4th	Spanish
		1 4th	Spanish
	CS 92	1 1st	Spanish
		1 2nd	Spanish
		1 3rd	Spanish
Non-Public	Saint Paul	1 k	Spanish and English
		1 1st	Spanish and English
		1 2nd	Spanish and English
		1 3rd	Spanish and English
		1 4th	Spanish and English

Six sites were selected according to the recommendations made by the CSD Superintendents and Supervisors of Bilingual Education, and the Parent Advisory Committee. Selection criteria included the number of LEP student population, the extent of their need, as well as the ability of the decentralized school districts to cooperate with centralized instructional and training program.

All three school districts have similar ethnic, racial and socio-economic compositions. They are composed primarily of Hispanics (Puerto Rican, Dominican, and Cuban) and Black American, and secondarily of White. These school districts have the highest percentage of Hispanic students and are among the lowest in socio-economic level in New York City.

4.0 Population Served

Seven hundred ninety-three students of limited English-speaking proficiency and 141 English-dominant students in grades

K-4 were served during the project year. All students participating are enrolled in schools that meet the socio-economic and academic achievement criteria established by Title I of the Elementary and Secondary Education Act.

Four (4) Spanish/English bilingual teacher participating in Project SABE were new to the New York City school system. They had recently completed their bachelors degrees in a college in New York City and had little or no professional teaching experience in English, Spanish or bilingually. Although they are Spanish-surnamed, they were educated in English almost exclusively. Twenty-five bilingual teachers in the project range from 3 to 15 years of experience in the NYC schools.

5.0 Program Organization

5.1 Personnel

The full-time staff provided under this grant includes a Project Director who has responsibility for all program administration and supervision including instructional, training, and fiscal matters. An Assistant Director aids the Director in all administrative areas and in the coordination of pupil services, teacher training (and education), and parent/community activities with the participating school districts and colleges, particularly the Parent Trainers. He is responsible for school-community relations activities. Both the Director and the Assistant hold New York City Teacher Licenses and New York State Certification in Educational Administration and Supervision. The former has 10 years and the latter 8 years of experience in teaching and administration in the New York City School System. Both are currently enrolled in programs of advanced studies

in Educational Administration.

Two (2) Spanish/English Resource Teachers provide training and supervision of bilingual teacher participants through weekly workshops and classroom visits. They serve as resources to teachers and paraprofessionals in curriculum and instruction in both English and Spanish. Both hold New York City Teaching Licenses, have a minimum of 5 years teaching experience in New York City, and have earned at least one masters degree in a specialized area of education. They are currently enrolled in graduate programs in Education for further professional development. The Resource Teachers are fully bilingual. A Senior Typist is responsible for office management, secretarial and clerical functions. Seven paraprofessionals (4 funded by Title VII - ESEA and 3 funded by Chapter 720 of the NYS Education Law) assist teachers in the implementation of the instructional program, and two parents trainers (funded by Title VII) conduct activities to orient and involve parents in their children's education. Eight of the nine paraprofessionals are enrolled in an undergraduate program leading to a B.A. degree in Education.

5.2 Interorganizational Articulation

The Project Director and Assistant Director communicate on a continuous basis with the administration of each CSD, including the Superintendent, Bilingual Education Project Director, Coordinator, Teacher Trainers, School Principals, and Curriculum Specialists. The Resource Teachers coordinate their training activities with each school district's training personnel and each school's designated supervisory staff.

The Project Director maintains continuous communication with the Directors of Bilingual Education at Hunter and Lehman Colleges. The Program assesses teacher needs and recommends courses, course content, and college and adjunct faculty for offerings to the SABE Project participants.

The Program staff collaborates with other resource and training units of the Office of Bilingual Education, New York City Board of Education and with the local Bureau of Bilingual Education, New York State Education Department in training workshops and conferences.

6.0 Activities

6.1 Pupil Instructional Services

The major emphasis of the instructional activities is to develop reading, writing, and mathematics competence as well as positive attitude to learning through individualized instruction in the dominant language. Additionally, the social studies were offered in comparative and multicultural perspectives. English was offered as a second language in a sequence beginning with the development of ORAL-AURAL skills and leading to mastery of reading and writing according to individual progress. Major subject areas were taught in the students' dominant language. Art, Music, and Physical Education were offered as linguistically enriching activities to reinforce the development of English. These latter curricular areas were coordinated with those offered to the non-target English-speaking school population in order to facilitate peer instruction, informal learning, and integration.

In addition to a concentration in cognitive development and a positive attitude to learning in general, the program focused specifically on the students' development of a positive self-concept by the study of their native culture.

6.2 Training

The Project staff met with the teachers, paraprofessionals, and school principals collectively and individually in order to assess needs and to plan a sequence of workshops directly related to the needs of participants. Training workshops began early in September, 1978 in order to ready teachers and paraprofessionals in matters related to classroom management and diagnosis of students needs/strengths. Three initial sessions also provided information about the philosophy, objectives, and activities of Project SABE.

6.2.1 Orientation Workshops

Orientation sessions conducted by the Project Director, the Assistant Director, and the Resource Teachers were:

- Introduction and Orientation to Project SABE - Fiscal Year 1978-79,
- Classroom schedule for teachers
- Instructional schedule for paraprofessionals
- Identification of materials and supplies to be used by students and teachers based on needs assessment for different subject areas.
- Classroom management.

The following are the workshops topics of sessions conducted during the 1978-79 project period:

6.2.2 For Teachers - In-service

- Puerto Rico's Discovery Day Program
- Creative Dramatics
- Oral Development Through Poetry, Stories, Legends and Crea-

- Individualized Instruction
- Reading Comprehension
- The Teaching of Art
- How to Make Puppets
- Making Materials for Individualized Instruciton

6.2.3 In-service For Paraprofessionals

- General Introduction to Program Activities - School Yea: 1978-79
- Evaluation of the Teaching of History and Culture of Puerto Rico in the Elementary School
- Teaching Reading in English in the Early Grades
- Reading Skills in Spanish
- Elementary Science Experiments
- Cuban Folklore
- History and Culture of Panama

Participation of 95% of the teachers and 100% of the paraprofessionals was secured at most of the sessions. Attendance requirements were made explicit to teachers and paraprofessionals as part of the program participation eligibility criteria. Results of training effectiveness were assessed in observations by the Project SABE Resource Teachers as well as by non-project supervisory personnel in the school districts.

6.2.4 Field Observation/On-site Training

The Resource Teacher's visit classrooms, observe lessons and activities, provide teaching demonstrations, observation feedback and on-the-job training. Resource Teachers are responsible for training activities and for a thorough documentation of teache r performance and progress.

They visit each teacher and paraprofessional four times every month and maintain progress reports. These reports are shared with program staff for planning of future activities.

Site visits also serve for exchange SABE staff and school district administrators/supervisors as well as parent and community groups working with the teachers. These visits enable the program personnel to coordinate its activities with those of the school districts and community agencies.

6.2.5 College Education Programs

Fifteen teacher participants registered in a graduate Bilingual Elementary Education Program at Hunter College. During the Fall 1978 and Spring 1979 semesters, each teacher participant earned, on the average, 6 graduate credits.

The courses available to teachers were:

- Bilingual Education Theory and Practice
- Linguistics for Teachers
- Teaching English as a Second Language
- Workshops on Curriculum Materials Development for English as a Second Language
- Problems in Education in Metropolitan Areas- Bilingual Education
- Advanced Studies in Reading and Language Arts- Bilingual Approach
- Advanced Educational Psychology

-Educational Workshop for Teachers of Children of Puerto Rican Origin

-Structure of the English Language

-Methods of Contrastive Analysis (English-Spanish)

Project SABE Paraprofessionals have attended Lehman College during the Fall 1978 and Spring 1979 terms. They have enrolled in the following courses:

-Psychological Foundations of Education

-History and Culture of Puerto Rico

-Introduction to Bilingual/Bicultural Education

-Practicum in Student Teaching in a Bilingual Setting

-Geometry

-Teaching Reading to Bilingual/Bicultural Children

-Contrastive Linguistics in Bilingual Education (Spanish-English)

-Communication Skills in the Development of Materials for Bilingual Education

-Principles of Effective Writing in English - Part I

-Principles of Effective Writing in English - Part II

-Introduction to Music

-Art in the Elementary School

-Science in the Elementary School

-Social Sciences in the Elementary School

-Written Communication Skills

-The Geologic Environment

-Preliminary Mathematics

-Methods of Teaching Reading in the Primary Grades

-Theory and Practice of Arithmetic

-Speech in English

The Project SABE Director, Assistant Director, Assistant Director and Bilingual Resource Teachers enrolled at Fordham University during the Spring 1979 term. They have enrolled in the following courses:

-Second Language Acquisition
-Linguistics, Psycholinguistics, Sociolinguistics and Reading
-Problems in Curriculum Development
-Funding and Grants in Education

Fifty percent (50%) of the participating teachers and 90% of the participating paraprofessionals enrolled in the College Programs made available free of charge through the Project. Teachers could obtain permanent State teaching certification (M.S.degree) and paraprofessionals could work toward provisional State teaching certification. (BA or BS degree).

6.2.6 Community and Parental Involvement

Project SABE's Parent Trainers have been meeting on a weekly basis with parents at different school sites. The purpose of the meetings is to conduct education workshops as well as to maintain the parents informed about the program. The following topics and/or activities have been presented:

-Bilingual Education
-Know your school, principal and teachers
-Maintaining communication with our children
-Parental Involvement in Education
-A time and place for homework
-Community Resources
-Attendance in School

- Budget Planning
- Famous people of Puerto Rico
- Introduction to Art: painting, primary and secondary colors,
- Paper folding technique, book binding
- Creative Writing in English and Spanish
- Reading Skills Development
- Basic Mathematics
- Nutrition
- English as a Second Language

Project SABE took program parents to two major activities outside of of the school setting:

On Friday, February 2, 1979 a group of parents with program staff attended a conference at Fordham University New York City. The title of the conference was: "A Reading Conference for Parents".

On Sunday, March 18, 1979 a group of parents with program staff attended a Broadway play given at the Puerto Rican Traveling Theatre. The title of the play was "Simpson Street".

The continuation application has included written comments by the parents about the implementation of Project SABE.

Participation of 50% of the parents of children in the Project was secured at orientation sessions and educational workshops and activities.

7.0 Outcomes

The following section reports the results of the testing administered to establish the effect of the program on student performance. Students were tested in the following areas:

Oral Language Proficiency	CIA - Oral Language Proficiency Test
	CIA - Prueba de Comprensión del Language Oral
Reading in English	CIA - Test of Reading, Levels, I, II and III
Reading in Spanish	CIA - Prueba de Lectura, Levels, I, II and III
Mathematics (English)	CIA - General Ability (Math Subpart) Levels, I, II, and III
Matemática (Spanish)	CIA - Habilidad General (Matemática) Levels, I, II and III

Students in kingergarten were administered either the CIA - Oral Language Proficiency Test or the CIA - Prueba de Comprensión del Language Oral, depending on their language ability.

Students in grades 1 through 3 were administered either the CIA - Test of Reading, Levels I and II or the CIA - Prueba de Lectura, Levels I and II depending on their language ability.

Students in fourth grade were administered both the CIA - Test of Reading Level III and the CIA - Prueba de Lectura, Level III.

On standarized tests in Oral language Proficiency, Reading in English and Spanish and Mathematics correlated t-tests were performed. This analysis demonstrates whether there is a significant difference between testing conducted at two points in time forstudents with matched pre-post test scores. It does

not represent an estimate of how students would have done in the absence of the program. No such estimate could be made because no norms were available for this population and the unavailability of an appropriate comparison group.

TABLE I

Oral Language Proficiency

Significance of Mean Total Raw Score Differences Between Pre and Post-test Scores on the CIA - Oral Language Proficiency Test (English) and CIA - Prueba de Comprension del Language Oral (Spanish)

			Pre-Test		Post-Test					
Grade	Language	N	Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	t-Test	df	Level of Significance
k	English	21	39.94	-	35.00	-	.06	-	20	NS
k	Spanish	18	28.83	4.28	29.19	5.78	.34	.273	17	NS

Test scores for kindergarten students are often unreliable. For this reason, caution should be exercised in interpreting these results.

Both kindergarten classes in the preceding table increased minimally from pre to post-testing. The mean raw score gains were .06 points in English and .34 points in Spanish. These two mean score gains were not significant at or less than the .05 of significance.

TABLE II

English Reading Achievement

Significance of Mean Total Raw Score Difference Between Pre and Post-test scores in English Reading on the CIA - Test of Reading for Students with Full Instructional Treatment, by Grade and Test Level

			Pre-Test		Post-Test					
Grade	Level	N	Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	t-Test	df	Level of Significance
1	I	23	19.13	6.35	35.09	11.00	15.96	14.67	22	.001
2	II	12	40.67	13.51	55.33	11.20	14.67	10.17	11	.001
3	II	35	48.17	12.85	66.57	17.04	18.40	7.06	34	.001
4	III	44	30.98	12.24	44.80	15.32	13.82	7.23	43	.001

The preceding table summarizes the findings for grades 1 through 4 on the cooperative Inter-American Test Series, Test of Reading, Levels I to III. Pre-test were administered in October and post-tests in May as proposed. The findings indicate that, on the average, scores for all grades and test levels increased from pre-to post-testing. The mean raw score gains ranged from 13.82 in the fourth grade to 18.40 in the third grade. These mean score gains are all significant at or less than the .001 level of significance.

It can be concluded that the Program Objective of statistically significant gains in mean raw scores at $p \leq .05$ for English Reading has been achieved.

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TABLE III

Spanish Reading Achievement

Significance of Mean Total Raw Score Differences Between Pre and Post test scores on the CIA - Prueba de Lectura for students with Full Instructional Treatment by Grade and Test Level

			Pre-Test		Post-Test					
Grade	Level	N	Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	t-Test	df	Level of Significance
1	I	90	20.37	12.09	36.64	21.13	16.28	8.25	89	.001
2	II	120	29.90	17.22	43.62	17.66	13.72	8.01	119	.001
3	II	115	58.30	22.05	65.36	21.01	7.05	4.37	114	.001
4	III	11	12.37	8.42	33.96	14.22	21.59	17.18	112	.001

The findings reported on the preceding table indicate that, on the average, scores for grades 1 through 4 and for all test levels increased for pre to post-testing. The mean raw score gains range from 7.05 in the third grade to 21.59 in the fourth grade. These mean score gains are all significant at or less than the .001 level of significance.

It can be concluded that the Program Objective of statistically significant gains in mean raw scores at $p \leq .05$ for Spanish Reading has been achieved.

TABLE IV

Mathematics Achievement

Significance of Mean Total Raw Score Differences Between Pre and Post-Test Scores in Mathematics on the CIA - General Ability (Math Subpart), of Students with Full Instructional Treatment, by Grade and Test Level.

			Pre-Test		Post-Test					
Grade	Level	N	Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	t-Test	df	Level of Significance
1	I	22	12.18	5.58	23.54	8.57	11.36	13.04	21	.001
2	II	11	10.73	3.77	14.27	2.61	3.55	2.85	10	. 05
3	II	35	13.63	6.15	19.29	4.57	5.66	6.91	34	.001
4	III	24	4.38	3.57	14.88	6.04	10.50	7.27	23	.001

The preceding table summarizes the findings for grades 1 through 4 on the Coperative Inter-American Test series, General Ability (Math Subpart), Levels I to III. Pre-tests were administered in October and post-tests in May, as proposed.

The findings indicate that, on the average, scores for all grades and test levels increased from pre to post-testing. The mean raw score gains ranged from 3.55 in the second grade to 11.36 in the first grade. These mean score gains are all significant at the .001 level of significance, except for grade 2 - CIA, General Ability Math Subpart, Level II which is significant at the .05 level.

If can be concluded that the Program Objective of statistically significant gains in mean raw scores at $p \leq .05$ for Math (English) has been achieved.

TABLE V

Mathematics Achievement

Significance of Mean Total Raw Score Differences Between Pre and Post-test Scores in Mathematics on the CIA - Habilidad General (Mathematics), of Students with Full Instructional Treatment, by Grade and Test Level.

			Pre-Test		Post-Test					
Grade	Level	N	Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	t-Test	df	Level of Significance
1	I	81	14.17	11.82	21.11	22.36	6.94	3.60	80	.001
2	II	129	10.72	10.26	17.77	11.96	7.05	6.76	128	.001
3	II	110	14.73	6.29	26.53	21.42	11.80	6.61	109	.001
4	III	103	7.48	5.04	10.82	6.42	3.34	5.26	102	.001

The preceding table summarizes the findings for grades 1 thourgh 4 on the Cooperative Inter-American Test Series, Habilidad General (Prueba de Mathematics), Levels I to III. Pre-tests were administered in October and post-tests in May, as proposed.

The findings indicate that, on the average, scores for all raw score gains ranged from 3.34 in the fourth grade to 11.80 in the third grade. These mean socre gains are all significant at the .001 level of significance.

It can be concluded that the Program Objective of statistically significant gains in mean raw scores at $p \leq .05$ for Math (Spanish) has been achieved.

8.0 Recommendations

On the basis of interviews with program staff, program participants, and school principals; observations; and findings of student testing; the following recommendations are made for program improvement:

1. The program should conduct an individualized need assessment in order to meet more effectively the heterogeneous training needs of its participating teachers.

2. Data collection should include documentation of teacher participation and progress in order to substantiate more effectively the outcomes of the program's training activities.

3. The program should collaborate with Hunter and Lehman Colleges' Bilingual Education Programs in the formulation of policy on:
   a. language usage in the classroom
   b. curriculum
   c. assessment
   d. teacher participant's language proficiency
   e. culture in the classroom
   f. assessment of teacher performance

4. The program should consider modularizing its training sessions in order to develop a training model that may be systematically documented.

5. The program should be funded to increase its staff to meet more effectively the demands of its on-site, in-service characteristics. This may be accomplished by the addition of a Bilingual Resource Teacher.

6. The program should provide more language training to participants in their weaker language.

7. The program should seek to coordinate its testing with other testing requirements for the student population, with the intent of avoiding over-testing.

8. The program should revise its teacher training objectives in order to define them with greater precision. Competency-based objectives are a suggested alternative.

9. The program should be funded again during the 1979-80 fiscal year so that it may continue making progress toward its long-range objectives.